CLAIMS

What is claimed is:

1. An axle assembly comprising:

a differential gearset;

a carrier housing defining a cavity and a window that permits access to the cavity, the differential gearset being disposed in the cavity;

a pair of half shafts coupled to the differential gearset and extending from the carrier housing; and

a housing cover coupled to the carrier housing and operable for sealingly closing the window, the housing cover including:

a cover member having a mating face and a plurality of raised connection points that are disposed between the carrier housing and the mating face; and

a seal ring coupled to the mating face, the seal ring encircling each of the raised connection points and including at least first and second ring members that are disposed between each of the raised connection points, wherein the seal ring sealingly engages the carrier housing and the mating face.

2. The axle assembly of Claim 1, wherein the raised connection points make direct contact with a housing mounting face and limit an amount by which the seal ring may be compressed between the mating face and the housing mounting face.

3. The axle assembly of Claim 2, wherein the seal ring is compressed to a compression distance between the cover mounting face and the housing mounting face.

4. The axle assembly of Claim 2, further comprising a web member connected to at least the first ring member and the second ring member and connected to the housing cover.

5. The axle assembly of Claim 1, further comprising the seal ring having a plurality of the ring members.

6. An axle assembly comprising:

a salisbury differential housing adapted to house a gear assembly, the salisbury differential housing including a housing mounting face;

a removable housing cover having a cover mating face and a plurality of fastening apertures;

a seal ring permanently affixed to said housing cover mating face, the seal ring including at least one encircling portion that encircles each of the fastening apertures;

a plurality of fasteners, each of the fasteners being received through an associated one of the fastening apertures and threadably engaging an aperture in the salisbury differential housing to thereby fixedly but removably couple the housing cover to the salisbury differential housing such that the seal ring is in sealing engagement with both the housing mounting face and the cover mating face; and

at least one compression limiting member associated with at least one of the housing cover and the fasteners, the compression limiting member contacting the salisbury differential housing to limit an amount by which the seal ring is compressed between the housing mating face and the cover mating face.

7. The axle assembly of Claim 6, wherein the seal ring includes first and second ring members, each of the first and second ring members being coupled at opposite ends to a pair of the encircling portions.

8. The axle assembly of Claim 7, wherein the first and second ring members are concentric.

9. The axle assembly of Claim 6, wherein the seal ring is formed from an elastomeric material.

10. The axle assembly of Claim 6, wherein the compression limiting member includes at least one of a shoulder bolt and a bolt assembly that comprises a bolt that extends through a hollow sleeve.

11. The axle assembly of Claim 6, wherein the compression limiting member includes a plurality of raised connection points that are formed on the housing cover and which are raised from the cover mating face.

12. An axle assembly comprising

a housing cover configured to attach to a salisbury differential housing with a plurality of fasteners;

a plurality of raised connection points integral to the housing cover; and

a seal ring affixed to the housing cover having a plurality of concentric sealing members encircling the plurality of the raised connection points, wherein the housing cover is secured to the differential housing with the seal ring disposed therebetween.

13. A method of assembly of an axle comprising:

providing a salisbury differential housing;

providing a rear housing cover including a seal ring configured to secure to the salisbury differential housing, wherein the seal ring is pre-attached to a mating face on the rear housing cover;

inserting a plurality of fasteners through a plurality of raised connection points, wherein each of the connections points is formed on the mating face of the rear housing cover; and

securing the rear housing cover to the salisbury differential housing with the plurality of fasteners wherein each of the connection points make direct contact with a mounting face of the salisbury differential housing and the seal ring is compressed between the mating face and the mounting face.